

**REMARKS**

Claims 1-15 and 31-33 are pending. Claims 16-30 are being canceled. Claims 31 and 33 are being amended. Claims 34-44 are being added. No new matter is being added.

Claims 16-30 are identified as part of a non elected species and are being canceled without prejudice or disclaimer of the subject matter for that reason.

Claims 31-33 have been objected to. Claim 31 is being amended for clarity. This objection has been overcome.

Claim 33 is being amended to correct an informality.

Claims 34-44 are being added. Claims 34, 35, 37, 39, 41, and 43 include limitations of pending claim 12. Claims 36, 38, 40, 42, and 44 include limitations of pending claim 10. Accordingly, the addition of these claims should not necessitate a new search.

The specification has been amended to correct informalities as set forth in Sections 10 and 11 of the Office Action and to update in the specification a cited reference as set forth in Section 8 of the Office Action.

Claim 5 stands rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement as set forth in Section 16 of the Office Action. Specifically, Section 16 states that “the Examiner does not see the subject matter description of ‘clustering in multi-dimensional space having a dimension for each test’ in the specification.”

Applicants respectfully submit that claim 5 is enabled. One example of support for this limitation can be found in the specification in the paragraph beginning on page 5, line 20. For example, that paragraph states “In one embodiment, the average squared coherency for each input from each test is clustered in multidimensional space having a dimension for each test run.” The next paragraph beginning on page 5, line 26 gives an example of “clustering averaged squared coherencies in two dimensional space 401.” Accordingly, claim 5 is enabled by the specification and drawings.

Claims 7-9 stand rejected under 35 USC 112 second paragraph as being incomplete for omitting essential elements as set forth in Sections 18 and 19 of the Office Action. Section 19 of the Office Action states that the Examiner is confused “how to interpret ‘a model for a group of signals’ in relation to the rest of the claimed invention for examination purposes.”

Applicant respectfully submits that the phrase “a model for a group of signals” is incorrect with respect to claim 7. The use of “group” in claim 7 refers to a “group of at least one

input” of the “grouping” step of claim 1. Claim 7 states that for each group of at least one input, an impulse response function is derived, and for each group, a model is derived from the impulse response function derived for that group. The term “group” in claim 7 does not refer to a “group of signals”.

#### Independent claim 1

Claim 1 stands rejected under 35 USC 103(a) as being unpatentable over Uchino, U.S. Pat. No. 7,076,405 (Uchino) in view of Macii, entitled “Stream Synthesis for Efficient Power Simulation Based on Spectral Transforms (Macii). Applicant respectfully traverses this rejection for at least the reason set forth below.

Uchino and Macii, either alone or in combination, do not disclose or suggest “grouping the plurality of inputs into groups of at least one input based on a commonality of power consumption of the circuit for the plurality of inputs as determined from the information,” as set forth in claim 1.

Section 25 of the Office Action states that Uchino “fails to disclose [...] grouping the plurality of inputs into groups of at least one input based on a commonality of power consumption of the circuit for the plurality of inputs as determined from the information and deriving a power transfer function.”

Section 26 of the Office Action states that Macii teaches “grouping the plurality of inputs into groups of at least one input based on a commonality of power consumption of the circuit for the plurality of inputs as determined from the information (see page 417, col. 2, next to last paragraph, lines 1-3 and 7-10).”

Applicant respectfully submits that Macii does not teach (either in the cited portion or in any other portion of Macii) the above cited grouping limitation as set forth in claim 1.

Macii teaches a way of minimizing the time to perform a simulation based power estimation by reducing the length of an input trace fed into an input of a simulated circuit. See the Abstract of Macii. Macii teaches synthesizing a new signal from an input trace signal while still obtaining accurate power estimates. See the second full paragraph of column 2 of page 417 of Macii.

The cited paragraph (next to last paragraph of column 2 of page 417) states that its method identifies relevant components of the “original stream” input trace signal and processes

those components to generate a reduced stream whose spectral characteristics and statistical properties are as close as possible to the original stream. In other words, Macii teaches reducing an input trace signal to a shorter signal that is inputted into a simulated circuit to reduce computation time.

Macii does not, however, teach or suggest, grouping inputs of the simulated circuit into groups of one or more inputs based on a commonality of power consumption of the circuit. Nowhere in Macii does it discuss grouping the inputs of a simulated circuit.

In some embodiments, grouping the inputs based on a commonality of power consumption may allow for a less complex power transfer function than a power transfer function that includes a model for each input. See for example the paragraph beginning on page 9, line 6 of the specification.

Each dependent claim in this application depends from an independent claim and is therefore allowable for at least this reason.

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned.

If Applicant has overlooked any additional fees, or if any overpayment has been made, the Commissioner is hereby authorized to credit or debit Deposit Account 503079, Freescale Semiconductor, Inc.


SEND CORRESPONDENCE TO:

Freescale Semiconductor, Inc.  
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Respectfully submitted,

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